

Date: Thursday, 17/04/2008 10:59:31 AM  
 User: Julie Lecocq

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	AFT CROSSTUBE
<b>Job Number</b> :	38666		
<b>Estimate Number</b> :	10377		
<b>P.O. Number</b> :		<b>Part Number</b> :	D2890
<b>This Issue</b> :	17/04/2008	<b>Drawing Number</b> :	D2890 REV B
<b>Prsht Rev.</b> :	NC	<b>Project Number</b> :	N/A
<b>First Issue</b> :	/ /	<b>Drawing Revision</b> :	B
<b>Previous Run</b> :	38645	<b>Material</b> :	
<b>Written By</b> :		<b>Due Date</b> :	30/05/2008
<b>Checked &amp; Approved By</b> :	JLD 08.4.17	<b>Qty:</b>	1
<b>Comment</b> :	Est. D 05.03.21 Removed Bending procedures KJ/JLM		

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	D6008180	Crosstube Extrusion
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty	Part #	Description	Batch
1	D6008-180	Crosstube extrusion	B40271

DP 8-7-23

2.0	BENDING	BENDING MACHINE - SKIDTUBES
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**Comment:** BENDING MACHINE

1-Bend D2890 as per Dwg D2890 and Folio FT002

DP 8-7-23

3.0	QC6	DIMENSIONAL CHECK
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**Comment:** DIMENSIONAL CHECK

08-7-23 (1)

4.0	SKIDTUBES 1	SKIDTUBES RESOURCE 1
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**Comment:** LANDING GEAR RESOURCE 1

1-Deburr and Polish

N/A

5.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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**Comment:** HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Thursday, 17/04/2008 10:59:31 AM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT CROSSTUBE

Job Number: 38666

Part Number: D2890

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



*MA*

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *W/O 38486 (-103) 08-07-23 (1)*

8.0

QC21

FINAL INSPECTION/W/O RELEASE



*08/07/23*

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



*MF 08-07-23*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

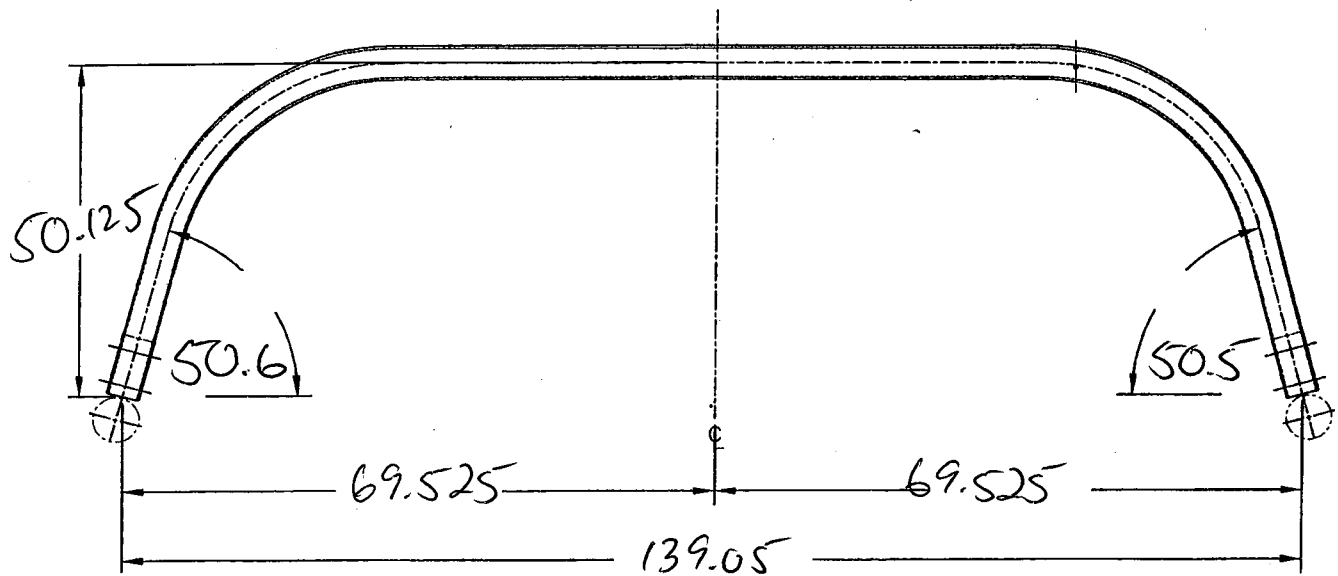
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	386666
<b>Description:</b> Crosstube Aft		<b>Part Number:</b>	D2890
<b>Inspection Dwg:</b> D2890		<b>Rev:</b> B	<b>Page 1 of 1</b>

Required Dimension	Min	Max
Height	49.875	50.125
1/2 Span	69.275	69.525
Angle	49	52
Total Span	138.55	139.05



Comments

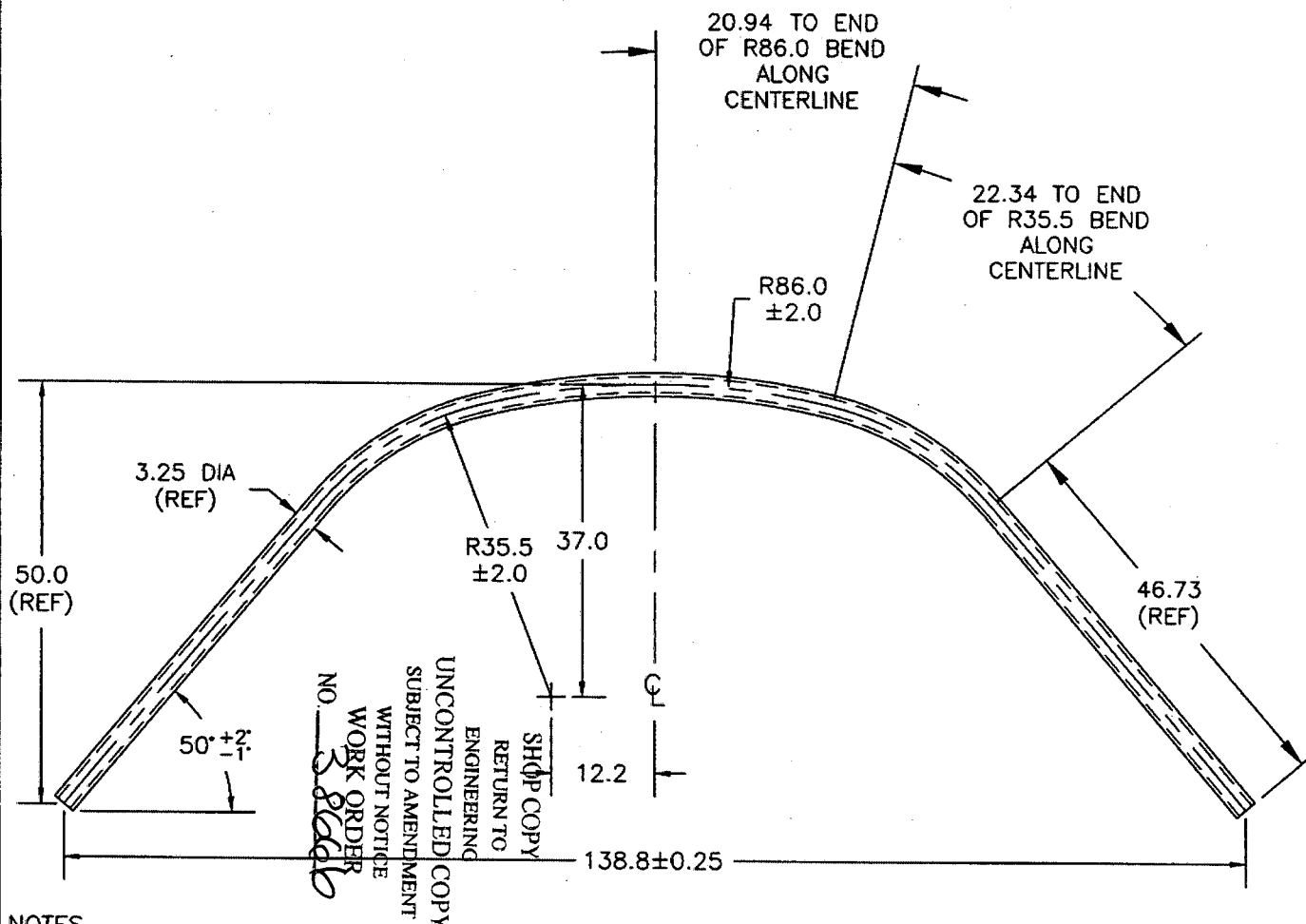
QC15 Inspection	
Date	28.07.23

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	



RELEASED  
02.10.28

DESIGN		DRAWN BY		DART AEROSPACE LTD	
CHECKED		APPROVED		DRAWING NO.	
DATE		DATE		TITLE	
02.10.18		99.05.21		AFT CROSSTUBE	
A		02.10.18		NEW ISSUE	
B		ADD TANGENT LENGTHS, CHANGE NOTES		SHEET 1 OF 1	
				SCALE	
				1:20	



#### NOTES

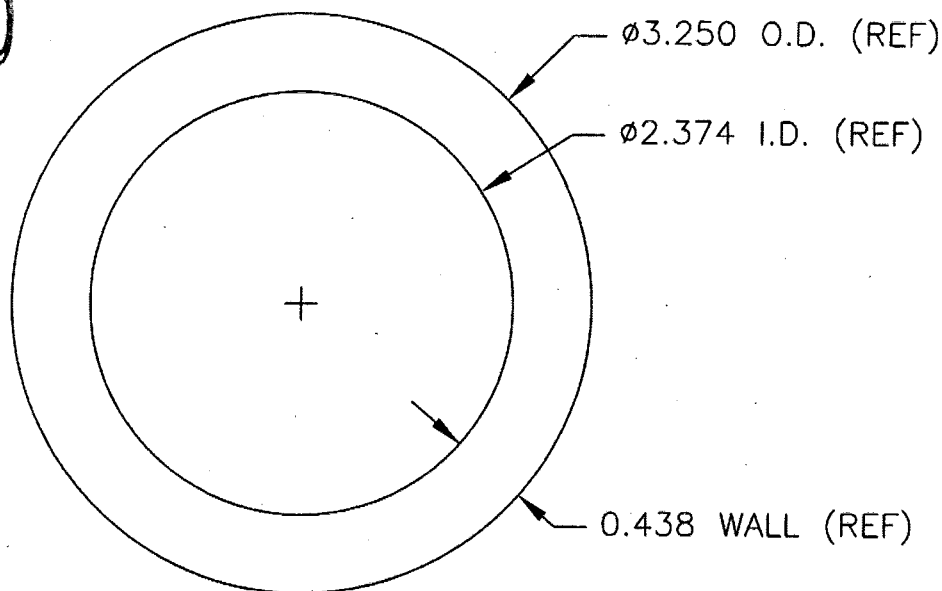
- 1) MATERIAL: MANUFACTURE FROM D6008-180 (ø3.25 OD x 0.438 WALL)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BEND PROGRESSIVELY WITH MINIMUM OF 3 PASSES
- 6) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6008	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

## SPECIFICATION CONTROL DRAWING

**RELEASED**  
00.11.24 *[Signature]*



### NOTES

- 1) D6008-XXX CROSSTUBE  
          LENGTH

WHERE XXX IS LENGTH IN INCHES  
EG. 180" LONG TUBE: D6008-180

- 2) MATERIAL: 3.250 OD x 0.438 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.  
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi  
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:  
O.D.:  $\pm 0.008$  MEAN ( $\pm 0.016$  INCLUDING OVALITY)  
WALL:  $\pm 0.020$  MEAN ( $\pm 0.044$  INCLUDING ECCENTRICITY)  
LENGTH: XXX  $+0.125/-0.000$   
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 38666

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